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Differential Diagnosis in Pediatric Dermatology

Erythema multiforme/Perilesional polymorphic dermatitis.

The cutaneous manifestations caused by Herpes simplex (HS) virus infection also depend on the host reaction: so in the virgin subject from previous contacts it usually gives unspecific manifestations accompanied by general symptoms or may manifest itself clinically in the child as neonatal HS, herpetic eruption on pre-existing dermatitis, herpetic gingivitis and stomatitis. After the first contact has occurred, the immune response is unable to prevent recurrences, but under normal conditions prevents the virus from becoming generalized. In a minority of subjects, herpes simplex recurrences are followed by post-herpetic erythema multiforme (Fig. 2). The latter is characterized by erythematous, papular (Fig. 1) and bullous (Fig. 4), target, acrolocated lesions that regress spontaneously or with antiviral drugs. Post-herpetic erythema multiforme is probably due to the presence of viral antigens bound to cells or conjugated in immune complexes.

Perilesional dermatitis is a reaction similar to erythema multiforme for morphology, acuteness and clinical course, but with a different distribution of lesions occurring only at the periphery of previous infectious lesions, 7-10 days after their appearance. We observed this reaction in case of varicella (Fig. 3) and more frequently after the first episode of staphylococcal pyoderma (Fig. 5). In this case we hypothesize that the infectious agent entering for the first time the organism induces the formation of a clone of immunocompetent cells; that clone, when after the 7-10 days required for its formation enters the peripheral circle, will be located at the periphery of the previous infectious lesions where viruses or bacteria are still present and will cause the reaction with a mechanism similar to what happens in experimental or therapeutic sensitization to diphencyprone.

Key words Erythema multiforme, perilesional polymorphic dermatitis, *Staphylococcus aureus*, varicella.

ERYTHEMA MULTIFORME		PERILESIONAL POLYMORPHIC DERMATITIS
Recurrent antigens (infections, drugs, etc.).	**Causes**	Antigens at the first contact with the body.
1-2 days after the recurrent infection.	**Onset**	7-10 days after the primary infection.
Symmetric, acrolocated.	**Polymorphic lesion sites**	Asymmetric, around the previous infectious lesions.
Target papular and/or bullous lesions.	**Morphology**	Target, papular and/or bullous lesions.
Acute, self-healing.	**Clinical course**	Acute, self-healing.
Yes.	**Recurrences**	No.

The condensed idea

Erythema multiforme: due to HS or various repetitive causes; acrolocated, symmetrical, recurrent.

Perilesional polymorphic dermatitis: due to *Staphylococcus*, varicella; peripheral, asymmetric, non-recurrent.

ERYTHEMA MULTIFORME

Fig. 1

Fig. 2

PERILESIONAL POLYMORPHIC DERMATITIS

Fig. 3

Fig. 1, 2, 3: Papular erythema multiforme due to unknown causes (Fig. 1); in Fig. 2 post-herpetic erythema multiforme: you can see the difference between the herpetic microvesicular lesions of the upper lip and the papular lesions of the cheeks and hands. In Fig. 3 post-varicella perilesional polymorphic dermatitis with centrifugally extending, target blister lesions started 10 days after varicella; in the middle of each lesion you can see a varicella pustule.

Fig. 4: Bullous erythema multiforme due to unknown causes.

Fig. 5: Post-pyoderma perilesional polymorphic dermatitis: you can see erythematous and papular lesions around the hypomelanic outcomes of pyoderma.